

Organically Certifiable Method of Ammonium Nitrate Production

Description:

This technology features a novel approach to forming organic fertilizers with high, industrial levels of plant-available nitrogen content—in contrast to the lower available nitrogen of most organic fertilizers. Unlike typical industrial methods of ammonium nitrate production, however, this method uses renewable resources and does not require the use of any synthetic or hazardous compounds. Virtually any source of bound nitrogen, including typical organic fertilizers and processing wastes (e.g. fish meal), can be converted to highly-usable ammonium nitrate via bioreactor.

Bioreactors provide an environmentally-friendly method for producing the ammonia and ammonium necessary for many applications, including organic farming. Demand continues to grow for organically grown produce, due primarily to the high nutritional quality of the produce and the ability to keep soils and local environments healthier. Produce farmed using ammonia/ ammonium generated by this method can be certified as organic by potentially all organic certification standards.

Producers of agricultural amendments and chemicals gain production of a high-value chemical fertilizer while adhering to organic standards and practices. Growers who are hesitant to switch over to an unknown organic production system are already familiar with the end product as an extremely effective fertilizer, and may embrace the opportunity to increase profits coupled with reduced risk. Therefore, this organic version of a product that is already known and used by nearly every commercial grower can expand the market for organic fertilizers and related amendments, increase profits for growers, and encourage a trend toward environmentally-responsible food production.

Benefits:

- Creates high-availability nitrogen fertilizer
- Uses only renewable resources
- No synthetics or hazardous compounds in production
- Processing waste (e.g. fish meal) may be used as input
- Can be certified organic
- Environmentally-friendly production
- Reduces commercial risk of organic farming



Inventor:	Brian Ward
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